

CLAIMS

1. A polyacetal resin composition which comprises
a polyacetal resin and an aliphatic carboxylic acid
5 hydrazide represented by the following formula (1):



wherein X represents a hetero atom or a hetero
atom-containing group having n-valence(s), R represents
an alkylene group and "n" denotes an integer of 1 to 4.

- 10 2. A resin composition according to claim 1,
wherein, in the formula (1), the hetero atom-containing
group X is a group corresponding to a hetero atom-containing
compound which comprises a chain or cyclic amine, a chain
or cyclic alcohol, or a chain or cyclic ether, and R is
15 a straight or branched C₁₋₁₀alkylene group.

3. A resin composition according to claim 1,
wherein the hetero atom-containing group X is a group
corresponding to a hetero atom-containing compound which
comprises an azacycloalkane, an azacycloalkene, an
20 azacycloalkadiene, a cyclic urea, a cyclic imide, a
monohydroxyarene, a polyhydroxyarene, a bisphenol compound,
an oxacycloalkane, or an oxaspiroalkane, and R is a straight
or branched C₁₋₆alkylene group.

4. A resin composition according to claim 1,
25 wherein the hetero atom-containing group X is a group
corresponding to a hetero atom-containing compound which
comprises at least one member selected from the group

consisting of a cyclic ureide compound and a mono- or polyoxaspiroC₆₋₂₀alkane.

5 5. A resin composition according to claim 1, wherein the proportion of the aliphatic carboxylic acid hydrazide is 0.001 to 20 parts by weight relative to 100 parts by weight of the polyacetal resin.

10 6. A resin composition according to claim 1, which further comprises at least one member selected from the group consisting of an antioxidant, a heat stabilizer, a processing stabilizer, a weather (light)-resistant stabilizer, an impact resistance improver, a gloss control agent, an agent for improving sliding property, a coloring agent, and a filler.

15 7. A resin composition according to claim 6, wherein the antioxidant comprises at least one member selected from the group consisting of a hindered phenol compound and a hindered amine compound.

20 8. A resin composition according to claim 6, wherein the processing stabilizer comprises at least one member selected from the group consisting of a higher fatty acid or a derivative thereof, a polyoxyalkylene glycol, and a silicone compound.

25 9. A resin composition according to claim 6, wherein the heat stabilizer comprises at least one member selected from the group consisting of a basic nitrogen-containing compound, a phosphine compound, an organic carboxylic acid or a metal salt of an organic

carboxylic acid, an alkali or alkaline earth metal compound,
a hydrotalcite, and a zeolite.

10. A resin composition according to claim 6,
wherein the heat stabilizer comprises at least one member
5 selected from the group consisting of an alkaline earth
metal salt of an organic carboxylic acid, and an alkaline
earth metal oxide.

11. A resin composition according to claim 6,
wherein the heat stabilizer comprises an alkaline earth
10 metal salt of a hydroxy acid.

12. A resin composition according to claim 6,
wherein the weather (light)-resistant stabilizer comprises
at least one member selected from the group consisting of
a benzotriazole compound, a benzophenone compound, an
15 aromatic benzoate compound, a cyanoacrylate compound, an
oxalic anilide compound, and a hydroxyaryl-1,3,5-triazine
compound.

13. A resin composition according to claim 6,
wherein the impact resistance improver comprises at least
20 one member selected from the group consisting of a
thermoplastic polyurethane-series resin, an acrylic
core-shell polymer, a thermoplastic polyester-series
elastomer and a styrenic elastomer.

14. A resin composition according to claim 6,
25 wherein the gloss control agent comprises at least one member
selected from the group consisting to an acrylic resin and
a styrenic resin.

15. A resin composition according to claim 6,
wherein the agent for improving sliding property comprises
at least one member selected from the group consisting of
an olefinic polymer, a silicone-series resin, and a
5 fluorine-containing resin.

16. A resin composition according to claim 1,
wherein a pellet of the polyacetal resin coexists with the
aliphatic carboxylic acid hydrazide or a master batch
containing the aliphatic carboxylic acid hydrazide.

10 17. A process for producing a polyacetal resin
composition, which comprises melt-mixing a polyacetal resin
and an aliphatic carboxylic acid hydrazide recited in claim
1 with an extruder, wherein at least the aliphatic carboxylic
acid hydrazide is fed to the extruder through a side feed
15 port thereof and is mixed with the polyacetal resin.

18. A process for producing a polyacetal resin
composition, which comprises melt-mixing a polyacetal resin
and an aliphatic carboxylic acid hydrazide recited in claim
1 with an extruder, wherein the average retention time in
20 the extruder is not longer than 300 seconds.

19. A molded product, which is formed from a
polyacetal resin composition comprising a polyacetal resin
and an aliphatic carboxylic acid hydrazide represented by
the following formula (1):

25
$$X-(R-C(=O)-NHNH_2)_n \quad (1)$$

wherein X represents a hetero atom or a hetero
atom-containing group having n-valence(s), R represents

an alkylene group and "n" denotes an integer of 1 to 4.

20. A molded product according to claim 19, wherein
(1) when the molded product is stored in a closed space
for 24 hours at a temperature of 80°C, the amount of
5 formaldehyde emission from the molded product is not more
than 1.0 µg per one cm² of the surface area of the product,
and/or (2) when the molded product is stored in a closed
space for 3 hours at a temperature of 60°C under saturated
humidity, the amount of formaldehyde emission from the
10 molded product is not more than 2 µg per one cm² of the surface
area of the product.

21. A molded product according to claim 19, which
is an automotive part, an electric or electronic device
part, an architectural or pipeline part, a household utensil
15 or cosmetic article part, or a medical device part.